

REMARKS

Claims 10-12 are amended. Claims 1-25 remain in the application for consideration. In view of the following remarks and/or remarks, Applicant respectfully requests reconsideration and allowance of the subject application.

§ 101 Rejections

Claims 10-12 stand rejected under 35 U.S.C. § 101 “because the claims do not meet the 35 U.S.C. requirements (the claims have improper language regarding the storage medium).”

Applicant respectfully disagrees with the Office’s rejection. Nevertheless, in the interest of advancing the prosecution of this matter, Applicant has amended these claims. Accordingly, Applicant respectfully requests that the rejections under § 101 be withdrawn.

§ 103 Rejections

Claims 1-25 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,744,472 to MacInnis et al. (hereinafter “MacInnis”) in view of U.S. Patent No. 6,539,059 to Sriram et al. (hereinafter “Sriram”).

The Claims

Claim 1 recites a method comprising:

- receiving a command from a decoder application at an application program interface (API), wherein the API is configured to facilitate the use of a plurality of different multimedia accelerators with the decoder application; and

- generating one or more filter control command data structures, recognizable by a communicatively coupled accelerator including one or more parameters which, when received by the accelerator, affects one or more filter settings of the accelerator based, at least in part, on the content of the received command.

In making out the rejection of this claim, the Office argues that its subject matter is rendered obvious in view of MacInnis and Sriram. Specifically, the Office argues that MacInnis discloses all of the features of the claim except for an application program interface (API). The Office then states “the examiner notes that the system depicted in figure 1 would require an interface to correctly operate”. The Office then acknowledges that MacInnis fails to show “the API configured to facilitate the use of a plurality of accelerators” and instead relies on Sriram as disclosing an API that is “configured to facilitate the use of a plurality of different multimedia accelerators with the decoder application”, as claimed. The Office argues that one would have been motivated to combine the teachings of these references “in order to obtain an apparatus that is more versatile by being able to correctly and effectively facilitate the use between multiple processors of a system.”

Applicant respectfully traverses this rejection and submits that the Office has not established a *prima facie* case of obviousness.

First, Applicant submits that the references do not collectively disclose all of the subject matter of this claim. For example, the *integrated circuit* system of MacInnis simply does not inherently disclose an application program interface (API) that would be necessary for it to correctly operate, as the Office contends. Also, Column 57 (lines 21-37) of MacInnis discusses the capabilities of the

1 graphics accelerator, but not “generating one or more filter control command data
2 structures”, as claimed.

3 In addition, the monitor processor in Sriram cannot be equated with an
4 application program interface (API), as that term is used and understood in the
5 context of the subject application (see e.g. pages 3-4)). In fact, the monitor
6 processor in Sriram is actually part of the system memory stored on the decoder
7 itself (see e.g. Sriram, Fig. 1) and is merely a processor that splits picture decoding
8 into multiple sub-processes of the same process (see e.g. Sriram, Column 7 (lines
9 49-50) and Column 8 (lines 19-21)). As such, it could not possibly be configured
10 to facilitate the use of “a plurality of *different* multimedia accelerators...”, as that
11 term is understood and used in the context of the subject application (see e.g. the
12 subject application, Pages 4-5) (emphasis added).

13 Second, Applicant respectfully submits that the Office’s stated motivation
14 “to obtain an apparatus that is more *versatile* by...” is too general and could serve
15 as the basis for making *any* modification to MacInnis. In other words, it fails to
16 explain *why* one would be motivated to make this specific proposed modification.
17 Indeed, the only explanation offered by the Office is that the apparatus would be
18 more versatile “by being able to correctly and effectively facilitate the use between
19 multiple processors of a system”. However, Applicant fails to see how this is
20 relevant to MacInnis, which does not appear to suffer from any deficiency
21 associated with this proposed modification.

22 Finally, Applicant submits that modifying the integrated chip structure of
23 MacInnis with the hierarchically regimented decoding system of Sriram would
24 impermissibly render MacInnis unsatisfactory for its intended purpose and
25 impermissibly change its principle of operation. (see MPEP 2143.01).

1 Specifically, Sriram teaches a video decoder which includes multiple sub-
2 processors and a system memory storing a monitor processor to control the sub-
3 processors. (see e.g. Sriram, Fig. 1). In contrast, the video decoder in MacInnis
4 does not itself comprise the accelerator or the memory controller. In addition, the
5 memory in MacInnis is not included on the graphics chip at all (See Figs. 1-2).
6 Indeed, the architectures of Sriram and MacInnis are so different that even a
7 cursory inspection shows that modifying MacInnis would radically change its
8 principle of operation and render it unsatisfactory as an integrated chip for
9 controlling a television display. Simply put, the teachings of MacInnis and Sriram
10 are too technologically inconsistent for one to have been motivated to combine
11 them.

12 In view of the above discussion, the Office has not established a *prima*
13 *facie* case of obviousness. Accordingly, for at least this reason, Applicant
14 traverses this rejection and submits that this claim is allowable.

15 **Claims 2-11** depend from claim 1 and are allowable as depending from an
16 allowable base claim. These claims are also allowable for their own recited
17 features which, in combination with those recited in claim 1, are neither disclosed
18 nor suggested in the references of record, either singly or in combination with one
19 another.

20 **Claim 12** recites a storage medium comprising a plurality of executable
21 instructions which, when executed, implement an application program interface
22 (API) to dynamically generate one or more filter control command data structures
23 in response to a command received from a decoder application, wherein the one or
24 more filter control command data structure(s) include one or more parameters,
25 which, when received by a communicatively coupled accelerator, effect one or

1 more filter settings on the accelerator in accordance with the received command,
2 wherein the API is not specific to any particular multimedia application and/or
3 multimedia accelerator.

4 In making out the rejection of this claim, the Office relies on the same
5 argument as that proffered for claim 1. Accordingly, for the reasons given above
6 with respect to claim 1, Applicant respectfully traverses this rejection and submits
7 that the Office has not established a *prima facie* case of obviousness.

8 In addition, Applicant notes that the Office has not addressed “wherein the
9 API is not specific to any particular multimedia application and/or multimedia
10 accelerator.” This is not surprising since the monitor processor (considered an
11 API by the Office) in Sriram is actually part of the video decoder itself, which also
12 includes all of the associated sub-processors (which are considered accelerators by
13 the Office).

14 In view of the above discussion, the Office has not established a *prima*
15 *facie* case of obviousness. Accordingly, for at least this reason, this claim is
16 allowable.

17 **Claims 13-17** depend from claim 12 and are allowable as depending from
18 an allowable base claim. These claims are also allowable for their own recited
19 features which, in combination with those recited in claim 12, are neither disclosed
20 nor suggested in the references of record, either singly or in combination with one
21 another.

22 **Claim 18** recites a computing system comprising:

- 23
- 24 • a decoder application to process received media content; and
 - 25 • an operating system including an application program interface (API), support the media processing, wherein the API generates one

1 or more filter control commands including one or more parameters
2 which, when received by a communicatively coupled media
3 processing accelerator, effect one or more filter settings of the
4 accelerator in accordance with a command received from the
5 decoder, wherein the decoder application is configured to iteratively
6 issue configuration commands reflecting various alternative degrees
7 and methods of decoding acceleration capability until choosing one
8 that is acceptable to both the decoder application and the accelerator.

9 In making out the rejection of this claim, the Office relies on the same
10 argument as that proffered for claim 1. In addition, the Office relies on Columns 5
11 (lines 58-67) and 12 (lines 59-63) of Sriram as disclosing “wherein the decoder
12 application is configured to iteratively issue configuration commands reflecting
13 ...until choosing one that is acceptable to both the decoder application and the
14 accelerator”.

15 Accordingly, for the reasons given above with respect to claim 1, Applicant
16 respectfully traverses this rejection and submits that the Office has not established
17 a *prima facie* case of obviousness.

18 In addition, Applicant submits that the Office has mischaracterized
19 Columns 5 and 12 of Sriram. Specifically, these portions simply have nothing to
20 do with a decoder application that is “configured to *iteratively* issue configuration
21 commands reflecting various *alternative degrees and methods of decoding*
22 *acceleration capability until choosing one that is acceptable to both the decoder*
23 *application and the accelerator*”. (emphasis added). These excerpts are
24 reproduced below for the Office’s convenience:

25 Data structures are one component of the invention. Data structures
for different block communication and parameter passing have been
chosen according to the bit stream hierarchy. Several factors were
considered in determining the organization of these parameters. Some of

1 the factors are: (1) implementing video decoding using multiple processes
2 efficiently; (2) efficient argument passing between different compute
3 blocks; (3) computational efficiency; (4) efficient data flow (minimal data
4 replication); and (5) good data cache effects.

5 Column 5 (lines 58-67)

6 Any given processing unit (for example, Motion Compensation)
7 needs only a subset of these parameters. A Macroblock structure is
8 defined in such a way that all the parameters needed for Macroblock
9 processing can be found in the MB data structure.

10 Column 12 (lines 59-63)

11 In view of the above discussion, the Office has not established a *prima*
12 *facie* case of obviousness. Accordingly, for at least this reason, this claim is
13 allowable.

14 **Claims 19-25** depend from claim 18 and are allowable as depending from
15 an allowable base claim. These claims are also allowable for their own recited
16 features which, in combination with those recited in claim 18, are neither disclosed
17 nor suggested in the references of record, either singly or in combination with one
18 another.

19 Conclusion

20 All of the claims are in condition for allowance. Accordingly, Applicant
21 requests a Notice of Allowability be issued forthwith.

22 Respectfully Submitted,

23 Dated: 4/16/2007

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